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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,370	11/20/2003	Naveen Chopra	D/99778D	9530

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PATENT DOCUMENTATION CENTER
XEROX CORPORATION
100 CLINTON AVE., SOUTH, XEROX SQUARE, 20TH FLOOR
ROCHESTER, NY 14644

EXAMINER

TRAN, THAO T

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/718,370

Applicant(s)

CHOPRA ET AL.

Examiner

Thao T. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 July 2006.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-12 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/31/2006 has been entered.
2. Claims 1-12 are currently pending in this application. No amendments have been made to the claim in this Reply.
3. In light of further consideration, the previous rejections of the claims have been withdrawn. New rejections of the claims are below.

Claim Objections

4. Claims 1-12 are objected to because of the following informalities: in claim 1, lines 6 and 7, it is preferred to insert a --;-- after "liquid droplet". Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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6. Claims 1-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Chopra et al. (US Pat. 6,488,870) or Chopra et al. (US Pat. 6,492,025).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Chopra '870 teaches a display device or an article of clothing, comprising a plurality of microcapsules adhering to its surface by an adhesive, the microcapsule including a polymerized, optionally hardened shell encapsulating a liquid droplet and a particle component, and a second coating encapsulating the shell (see abstract; Fig. 2; col. 2, ln. 16-20; col. 3, ln. 65 to col. 4, ln. 66; col. 6, ln. 35-45).

The particle component is a single particle or from one to five particles, each particle being a bichromal ball having two hemispheric surfaces having different color and electrical characteristics; whereas the shell is insufficient to accommodate another similarly-sized particle that is in addition to the one or five particles (see col. 3, ln. 3-7; col. 5, ln. 33-38; col. 10, ln. 40-42). The particles are hemispheric bichromal balls, wherein one hemisphere is white due to titanium dioxide, and the other hemisphere is black due to magnetite or carbon black (see col. 5, ln. 33-54). The microcapsules have a diameter of about 10 to about 300 mm, and the shell has a thickness of about 0.5 to about 5 mm (see col. 7, ln. 34-39).

The shell of the microcapsule is formed from materials such as polyphosphates or proteins such as collagen or gelatin, meeting the requirement of amphiphilic polymers (see col. 4, ln. 10-55).

Chopra '870 further teaches hardening of the shell being formed by coating the microcapsules with a second coating in an emulsion (see col. 6, ln. 35-45). Thus, the hardened shell would be considered as micelle. Furthermore, since the hardened shell is optional, it's limitation would have no patentable weight. Hardening of the shell can also be induced by introducing a crosslinking agent into the emulsion during gelation for the formation of the shell (see col. 6, ln. 46-59). Thus, the hardened shell is in direct contact with the liquid droplet.

Chopra '025 teaches a display device or an article of clothing, comprising a plurality of microcapsules adhering to its surface by an adhesive, the microcapsule including a polymerized, optionally hardened shell encapsulating a liquid droplet and a particle component, and a second coating encapsulating the shell (see abstract; Figs. 2-4; col. 2, ln. 4-8; col. 3, ln. 53 to col. 4, ln. 65; col. 6, ln. 23-33).

The particle component is a single particle or from one to five particles, each particle being a bichromal ball having two hemispheric surfaces having different color and electrical characteristics; whereas the shell is insufficient to accommodate another similarly-sized particle that is in addition to the one or five particles (see col. 2, ln. 59-62; col. 5, ln. 21-26; claims 1-2, 7-12, 19). The particles are hemispheric bichromal balls, wherein one hemisphere is white due to titanium dioxide, and the other hemisphere is black due to magnetite or carbon black (see col. 5, ln. 21-33). The microcapsules have a diameter of about 10 to about 300 mm, and the shell has a thickness of about 0.5 to about 5 mm (see col. 7, ln. 22-26).

The shell of the microcapsule is formed from materials such as polyphosphates or proteins such as collagen or gelatin, meeting the requirement of amphiphilic polymers (see col. 4, ln. 1-43).

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Chopra '025 further teaches hardening of the shell being formed by coating the microcapsules with a second coating in an emulsion (see col. 6, ln. 23-37). Thus the hardened shell would be considered as micelle. Furthermore, since the hardened shell is optional, it's limitation would have no patentable weight. Hardening of the shell can also be induced by introducing a crosslinking agent into the emulsion during gelation for the formation of the shell (see col. 6, ln. 34-47). Thus, the hardened shell is in direct contact with the liquid droplet.

Response to Arguments

7. Upon further consideration, the claims are now rejected as anticipated by Chopra '870 and Chopra '025.

Applicants contend that in a coacervation process, addition of an amphiphile would compromise the wall forming around the oil droplet. However, as shown in both references, various polymers, including polyphosphates, polycarboxylates, and proteins have been used in the formation of the microcapsule shell. It is noted that these polymers are amphiphilic. Thus, both references of Chopra anticipate the presently claimed invention.

Contact Information

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thao T. Tran whose telephone number is 571-272-1080. The examiner can normally be reached on Monday-Friday, from 9:00 a.m. - 5:30 p.m..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Thao T. Tran
Primary Examiner
Art Unit 1711

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October 16, 2006